

ABSTRACT OF THE DISCLOSURE

An optical switch router performs both optical switching and traditional routing. The optical switch router includes optical interfaces for coupling to one or more incoming optical fibers and to one or more outgoing optical fibers, and also includes a number of traditional router ports.

Individual incoming optical data streams received over the incoming optical fiber(s) can be selectively passed through to one or more of the outgoing optical fibers or "dropped" from the optical communication path for traditional routing. Routed traffic, which can be received over the router ports or from the "dropped" optical data streams, can be forwarded over optical data streams that are "added" to the outgoing optical fiber(s). The "added" optical data streams may be added to the outgoing optical fiber(s) at any unused wavelengths, including, but not limited to, the wavelengths of the "dropped" optical data streams.

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